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(54) GAMING SYSTEM AND A METHOD OF GAMING

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- (52) **U.S. CI.** CPC *G07F 17/32* (2013.01); *G07F 17/3267* (2013.01); *G07F 17/3258* (2013.01)

(56) References Cited

U.S. PATENT DOCUMENTS

2003/0060282	A1	3/2003	Suzuki			
2004/0018874	A1	1/2004	Bonney et al.			
2004/0053680	A1	3/2004	Schultz			
2004/0072608	A1	4/2004	Toyoda			
2004/0152507	A1	8/2004	Baerlocher et al.			
2004/0204223	A1	10/2004	Cuddy et al.			
2004/0214632	A1	10/2004	Cuddy et al.			
2004/0242302	A1	12/2004	Baerlocher			
2005/0009601	A1	1/2005	Manfredi et al.			
2005/0049029	A1	3/2005	Gazdic et al.			
2005/0148382	A1	7/2005	Fox			
2005/0250578	A1	11/2005	Slomiany et al.			
2006/0111178	A1	5/2006	Gallaway et al.			
2006/0205491	A1	9/2006	Daley			
2006/0252501	A1	11/2006	Little et al.			
2006/0258437	A1	11/2006	Osawa			
2007/0093297	A1	4/2007	Moshal			
2007/0099692	A1	5/2007	Hishinuma et al.			
2007/0111783	A1	5/2007	Cuddy et al.			
2007/0168462	A1	7/2007	Grossberg et al.			
2008/0004101	A1*	1/2008	Hein et al 463/20			
(Continued)						

FOREIGN PATENT DOCUMENTS

CN 1858759 11/2006 EP 1199689 4/2002

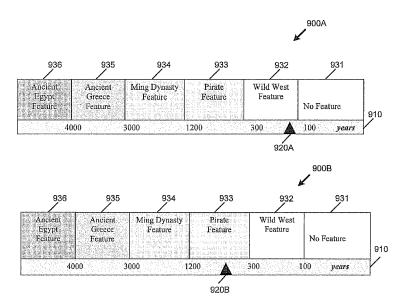
(Continued)

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(57) ABSTRACT

A method of gaming comprising: conducting a base game; modifying a current value of a feature counter by a random value in response to a designated counter event occurring in the base game; determining whether the current value of the feature counter corresponds to one of a plurality of feature games in response to a feature trigger event occurring; and conducting any feature game to which the current value of the feature counter corresponds.

35 Claims, 8 Drawing Sheets



US 9,342,946 B2 Page 2

(56)	Refe	ences Cited	MX	PA03003355	12/2004
U.S. PATENT DOCUMENTS			TW WO WO	262813 B 03028818 2004038551	10/2006 4/2003 5/2004
2009/001			WO WO WO WO	2006039349 2006039366 2006130611 2007008116	4/2006 4/2006 12/2006 1/2007
FOREIGN PATENT DOCUMENTS			WO WO WO	2007003110 2007011915 2007022559 2007084967	1/2007 1/2007 3/2007 7/2007
GB GB	2410696 2430388	8/2005 6/2008		oy examiner	772007

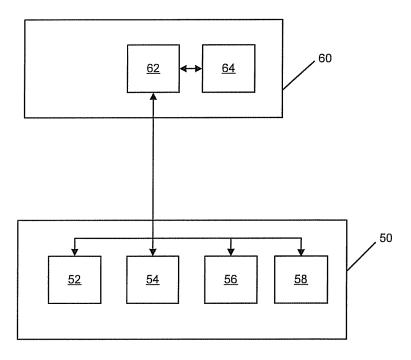


Figure 1

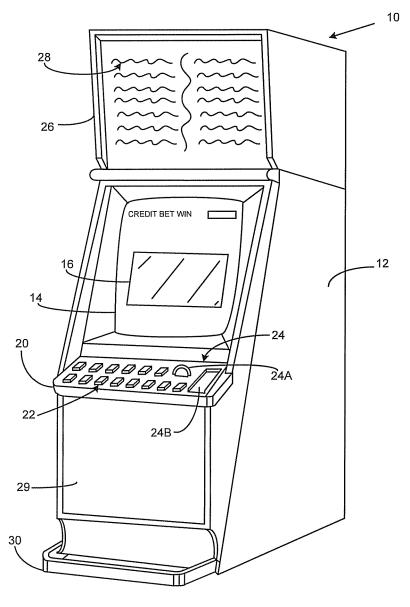
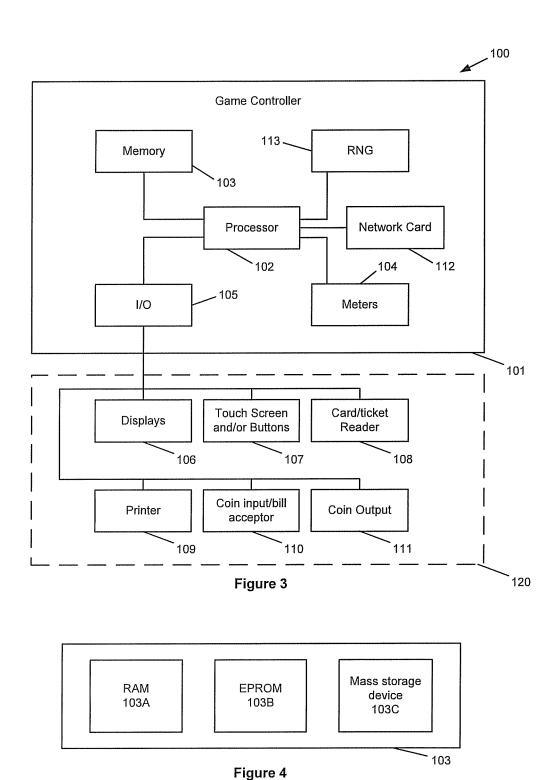


Figure 2



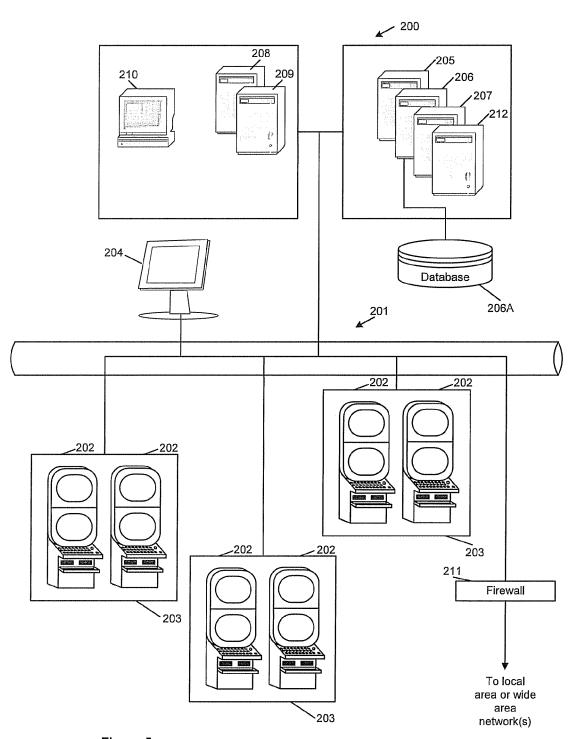
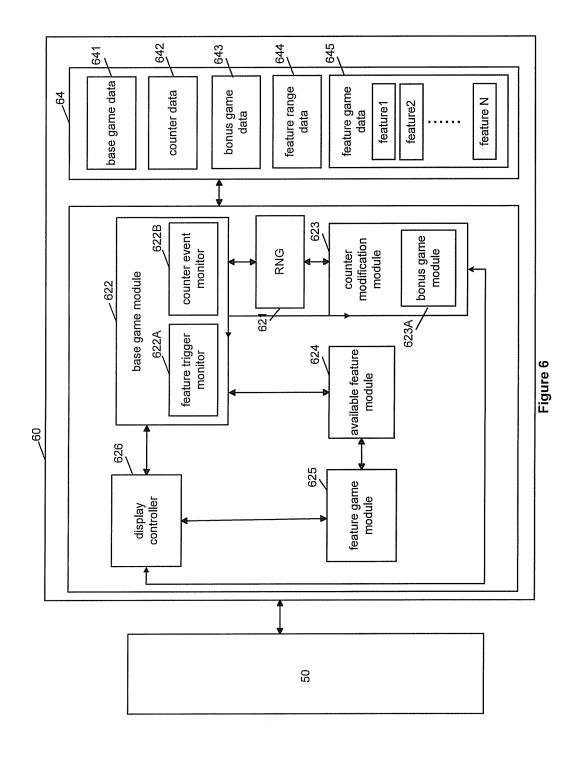


Figure 5



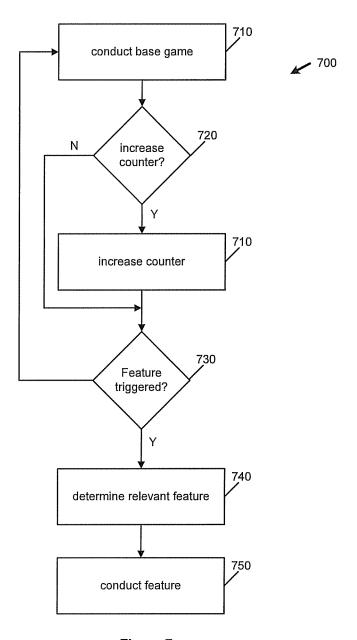


Figure 7

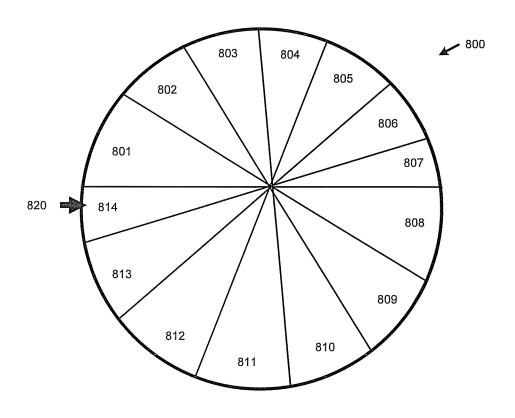
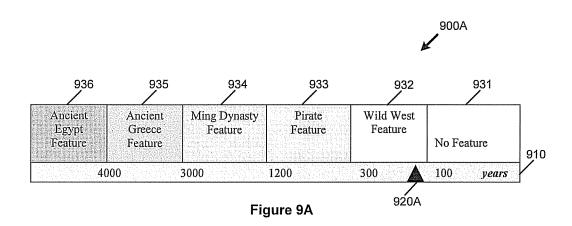


Figure 8



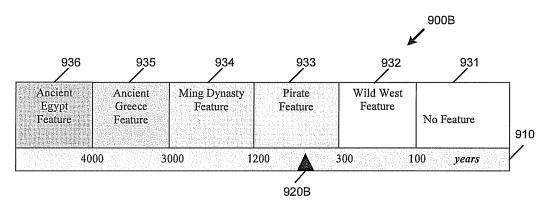


Figure 9B

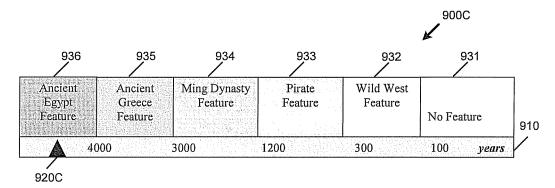


Figure 9C

GAMING SYSTEM AND A METHOD OF **GAMING**

RELATED APPLICATION

This application claims priority to Australian Provisional Patent Application No. 2007905348 having a filing date of Oct. 1, 2007, which is hereby incorporated by reference herein in its entirety.

FIELD OF THE INVENTION

The present invention relates to a gaming system, a method of gaming, a game controller and computer program code.

BACKGROUND TO THE INVENTION

Many gaming machines provide a feature game which is triggered in response to a trigger event occurring in a base game. Such feature games often award more prizes or higher prizes than the base game or are "free" in the sense that no further investment is required by the player to play the feature

While such gaming machines provide users with enjoy- 25 ment, a need exists for alternative gaming systems in order to maintain or increase player enjoyment.

SUMMARY OF THE INVENTION

In a first aspect the invention provides a method of gaming comprising:

conducting a base game;

modifying a current value of a feature counter by a random the base game;

determining whether the current value of the feature counter corresponds to one of a plurality of feature games in response to a feature trigger event occurring; and

conducting any feature game to which the current value of 40 the feature counter corresponds.

In an embodiment, the designated counter event is the completion of a designated number of game rounds in the base game.

In an embodiment, the designated number is one.

In an embodiment, the designated number is two.

In an embodiment, the designated counter event is the occurrence of a symbol combination in the base game.

In an embodiment, different ranges of counter values are allocated to each of the plurality of feature games, and the 50 determination as to whether a feature game corresponds to the current value of the counter is based on the allocated ranges.

In an embodiment, at least one range of counter values is not allocated to a feature game such that if the current counter value is within that range when a feature trigger event occurs, 55 a feature game is not conducted.

In an embodiment, the feature counter is modified by subtraction.

In an embodiment, the feature counter is modified by addi-

In an embodiment, the feature counter represents a time period and each of the features corresponds to a period in history.

In an embodiment, the random value is determined in a bonus game.

In an embodiment, the bonus game is a spinning wheel game, the wheel having a plurality of segments correspond2

ing to a plurality of values and wherein the wheel is spun and the value determined based on a random stopping position of the wheel.

In an embodiment, wherein the prize value of the feature game is related to the size of the current value of the feature

In an embodiment, the method comprises resetting the feature counter in response to at least a determination that a new game session is to be conducted.

In a second aspect the invention provides a game controller comprising a feature counter, the game controller arranged to: conduct a base game;

modify a current value of a feature counter by a random value in response to a designated counter event occurring in 15 the base game;

determine whether the current value of the feature counter corresponds to one of a plurality of feature games in response to a feature trigger event occurring; and

conduct any feature game to which the current value of the feature counter corresponds.

In an embodiment, the game controller comprises a modification module arranged to modify the feature game counter by a random value.

In an embodiment, the game controller comprises an available feature module arranged to carry out the determination of whether a current value of the feature counter corresponds to one of a plurality of feature games in response to a feature trigger event occurring in the base game.

In an embodiment, the designated counter event is the 30 completion of a designated number of game rounds in the base game.

In an embodiment, the designated counter event is the occurrence of a symbol combination in the base game.

In an embodiment, different ranges of counter values are value in response to a designated counter event occurring in 35 allocated to each of the plurality of feature games, and the determination as to whether a feature game corresponds to the current value of the counter is based on the allocated ranges.

> In an embodiment, at least one range of counter values is not allocated to a feature game such that if the current counter value is within that range when a feature trigger event occurs, a feature game is not conducted.

> In an embodiment, the feature counter is modified by subtraction.

In an embodiment, the feature counter is modified by addi-45 tion

In an embodiment, the feature counter represents a time period and each of the features corresponds to a period in

In an embodiment, the game controller comprises a bonus game module for conducting a bonus game to determine the random value.

In an embodiment, the bonus game is a spinning wheel game, the wheel having a plurality of segments corresponding to a plurality of values and wherein the wheel is spun and the value determined based on a random stopping position of the wheel.

In an embodiment, the prize value of the feature game is related to the size of the current value of the feature counter.

In an embodiment, the game controller is arranged to reset 60 the feature counter in response to at least a determination that a new game session is to be conducted.

In an embodiment, the game controller is implemented, at least in part by a processor executing program instructions stored in a memory.

In a third aspect the invention provides a gaming system comprising:

a player interface; and

a game controller comprising a feature counter, the game controller arranged to:

conduct a base game;

modify a current value of a feature counter by a random value in response to a designated counter event occurring in 5 the base game:

determine whether the current value of the feature counter corresponds to one of a plurality of feature games in response to a feature trigger event occurring; and

conduct any feature game to which the current value of the feature counter corresponds.

In an embodiment, the player interface comprises a display for displaying play of the base game, the feature counter and any feature game.

In an embodiment, the gaining system comprises a game play mechanism operable by the player to initiate a play of the

In an embodiment, the game controller comprises a modification module arranged to modify the feature game counter 20 by a random value.

In an embodiment, the game controller comprises an available feature module arranged to carry out the determination of whether a current value of the feature counter corresponds to one of a plurality of feature games in response to a feature 25 the feature indicator corresponds. trigger event occurring in the base game.

In an embodiment, the designated counter event is the completion of a designated number of game rounds in the base game.

In an embodiment, the designated counter event is the occurrence of a symbol combination in the base game.

In an embodiment, different ranges of counter values are allocated to each of the plurality of feature games, and the determination as to whether a feature game corresponds to the $\frac{1}{35}$ current value of the counter is based on the allocated ranges.

In an embodiment, at least one range of counter values is not allocated to a feature game such that if the current counter value is within that range when a feature trigger event occurs, a feature game is not conducted.

In an embodiment, the game controller comprises a bonus game module for conducting a bonus game to determine the random value.

In an embodiment, the bonus game is a spinning wheel ing to a plurality of values and wherein the wheel is spun and the value determined based on a random stopping position of the wheel.

In an embodiment, the prize value of the feature game is related to the size of the current value of the feature counter. 50

In an embodiment, the game controller is arranged to reset the feature counter in response to at least a determination that a new game session is to be conducted.

In an embodiment, the game controller is implemented, at least in part by a processor executing program instructions 55 stored in a memory.

In a fourth aspect the invention provides a method of gaming comprising:

conducting a base game;

modifying a current position of a feature indicator by a 60 random amount in response to a designated indicator event occurring in the base game;

determining whether the current position of the feature indicator corresponds to one of a plurality of feature games in response to a feature trigger event occurring; and

conducting any feature game to which the current position of the feature indicator corresponds.

In an embodiment, the designated indicator event is the completion of a designated number of game rounds in the base game.

In an embodiment, the designated indicator event is the occurrence of a symbol combination in the base game.

In an embodiment, the random value is determined in a bonus game.

In an embodiment, the bonus game is a spinning wheel game, the wheel having a plurality of segments corresponding to a plurality of values and wherein the wheel is spun and the value determined based on a random stopping position of

In a fifth aspect the invention provides a game controller comprising a feature indicator, the game controller arranged

conduct a base game;

modify a current position of a feature indicator by a random amount in response to a designated indicator event occurring in the base game;

determine whether the current position of the feature indicator corresponds to one of a plurality of feature games in response to a feature trigger event occurring; and

conduct any feature game to which the current position of

In an embodiment, the designated indicator event is the completion of a designated number of game rounds in the base game.

In an embodiment, the designated indicator event is the 30 occurrence of a symbol combination in the base game.

In an embodiment, the game controller comprises a bonus game value arranged to conduct a bonus game to determine the random value.

In an embodiment, the bonus game is a spinning wheel game, the wheel having a plurality of segments corresponding to a plurality of values and wherein the wheel is spun and the value determined based on a random stopping position of the wheel.

In a sixth aspect the invention provides a gaming system 40 comprising:

a player interface; and

a game controller arranged to:

conduct a base game;

modify a current position of a feature indicator by a random game, the wheel having a plurality of segments correspond- 45 amount in response to a designated indicator event occurring in the base game;

> determine whether the current position of the feature indicator corresponds to one of a plurality of feature games in response to a feature trigger event occurring; and

> conduct any feature game to which the current position of the feature indicator corresponds.

> In an embodiment, the designated indicator event is the completion of a designated number of game rounds in the base game.

> In an embodiment, the designated indicator event is the occurrence of a symbol combination in the base game.

> In an embodiment, the game controller comprises a bonus game value arranged to conduct a bonus game to determine the random value.

> In an embodiment, the bonus game is a spinning wheel game, the wheel having a plurality of segments corresponding to a plurality of values and wherein the wheel is spun and the value determined based on a random stopping position of the wheel.

In a seventh aspect the invention provides computer program code which when executed implements any of the above methods

In an eighth aspect the invention provides a computer readable medium comprising the above program code.

In a ninth aspect the invention provides a data signal comprising the above program code.

In a tenth aspect, the invention extends to transmitting the program code.

BRIEF DESCRIPTION OF THE DRAWINGS

An embodiment of the invention will now be described in 10 relation to the following drawings in which:

FIG. 1 is a block diagram of the core components of a gaming system;

FIG. 2 is a perspective view of a gaming machine;

FIG. 3 is a block diagram of the functional components of 15 a gaming machine;

FIG. 4 is a block diagram representing the structure of a memory:

FIG. 5 is a diagram schematic of a networked gaming system;

FIG. 6 is a further block diagram of the gaming system;

FIG. 7 is a flow chart of an embodiment;

FIG. 8 illustrates an exemplary wheel for a bonus game; and

FIGS. 9A to 9C are examples of a display indicating a 25 player's progress towards different feature levels.

DETAILED DESCRIPTION

The embodiment provides a gaming system having a game 30 controller arranged to conduct a base game and each of a plurality of feature games. When a designated counter event occurs in the base game, a feature counter is modified by a random value. If a feature trigger event occurs in the base game it is determined whether a current value of the feature 35 counter corresponds to one of a plurality of feature games. If there is a correspondence, the relevant feature game is conducted

In a first form, a stand alone gaining machine is provided wherein all or most components required for implementing 40 the game are present in a player operable gaming machine.

In a second form, a distributed architecture is provided wherein some of the components required for implementing the game are present in a player operable gaming machine and some of the components required for implementing the game 45 are located remotely relative to the gaming machine. For example, a "thick client" architecture may be used wherein part of the game is executed on a player operable gaining machine and part of the game is executed remotely, such as by a gaming server; or a "thin client" architecture may be used 50 wherein most of the game is executed remotely such as by a gaming server and a player operable gaming machine is used only to display audible and/or visible gaming information to the player and receive gaining inputs from the player.

However, it will be understood that other arrangements are envisaged. For example, an architecture may be provided wherein a gaming machine is networked to a gaming server and the respective functions of the gaining machine and the gaming server are selectively modifiable. For example, the gaining system may operate in stand alone gaming machine mode, "thick client" mode or "thin client" mode depending on the game being played, operating conditions, and so on. Other variations will be apparent to persons skilled in the art.

Irrespective of the form, the gaming system has several core components. At the broadest level, the core components 65 are a player interface 50 and a game controller 60 as illustrated in FIG. 1. The player interface is arranged to enable

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manual interaction between a player and the gaming system and for this purpose includes the input/output components required for the player to enter instructions and play the game.

Components of the player interface may vary from embodiment to embodiment but will typically include a credit mechanism 52 to enable a player to input credits and receive payouts, one or more displays 54, a game play mechanism 56 that enables a player to input game play instructions, and a speaker 58.

The game controller **60** is in data communication with the player interface and typically includes a processor **62** that processes the game play instructions in accordance with game play rules and outputs game play outcomes to the display. Typically, the game play instructions are stored as program code in a memory **64** but can also be hardwired. Herein the term "processor" is used to refer generically to any device that can process game play instructions in accordance with game play rules and may include: a microprocessor, microcontroller, programmable logic device or other computational device, a general purpose computer (e.g. a PC) or a server.

A gaming system in the form of a stand alone gaming machine 10 is illustrated in FIG. 2. The gaming machine 10 includes a console 12 having a display 14 on which is displayed representations of a game 16 that can be played by a player. A mid-trim 20 of the gaming machine 10 houses a bank of buttons 22 for enabling a player to interact with the gaming machine, in particular during game play. The midtrim 20 also houses a credit input mechanism 24 which in this example includes a coin input chute 24A and a bill collector **24**B. Other credit input mechanisms may also be employed, for example, a card reader for reading a smart card, debit card or credit card. A player marketing module may be provided having a reading device for the purpose of reading a player tracking device, for example as part of a loyalty program. The player tracking device may be in the form of a card, flash drive or any other portable storage medium capable of being read by the reading device.

A top box 26 may carry artwork 28, including for example pay tables and details of bonus awards and other information or images relating to the game. Further artwork and/or information may be provided on a front panel 29 of the console 12. A coin tray 30 is mounted beneath the front panel 29 for dispensing cash payouts from the gaming machine 10.

The display 14 shown in FIG. 2 is in the form of a video display unit, particularly a cathode ray tube screen device. Alternatively, the display 14 may be a liquid crystal display, plasma screen, any other suitable video display unit, or the visible portion of an electromechanical device. The top box 26 may also include a display, for example a video display unit, which may be of the same type as the display 14, or of a different type.

FIG. 3 shows a block diagram of operative components of a typical gaming machine which may be the same as or different to the gaming machine of FIG. 2.

The gaming machine 100 includes a game controller 101 having a processor 102. Instructions and data to control operation of the processor 102 are stored in a memory 103, which is in data communication with the processor 102. Typically, the gaming machine 100 will include both volatile and non-volatile memory and more than one of each type of memory, with such memories being collectively represented by the memory 103.

The gaming machine has hardware meters 104 for purposes including ensuring regulatory compliance and monitoring player credit, an input/output (I/O) interface 105 for communicating with peripheral devices of the gaming

machine 100. The input/output interface 105 and/or the peripheral devices may be intelligent devices with their own memory for storing associated instructions and data for use with the input/output interface or the peripheral devices. A random number generator module 113 generates random numbers for use by the processor 102. Persons skilled in the art will appreciate that the reference to random numbers includes pseudo-random numbers.

In the example shown in FIG. 3, a player interface 120 includes peripheral devices that communicate with the game controller 101 including one or more displays 106, buttons and/or a touch screen 107, a card and/or ticket reader 108, a printer 109, a bill acceptor and/or coin input mechanism 110 and a coin output mechanism 111. Additional hardware may be included as part of the gaming machine 100, or hardware may be omitted as required for the specific implementation.

In addition, the gaming machine 100 may include a communications interface, for example a network card 112. The network card may, for example, send status information, 20 accounting information or other information to a central controller, server or database and receive data or commands from the central controller, server or database.

FIG. 4 shows a block diagram of the main components of an exemplary memory 103. The memory 103 includes RAM 25 103A, EPROM 103B and a mass storage device 103C. The RAM 103A typically temporarily holds program files for execution by the processor 102 and related data. The EPROM 103B may be a boot ROM device and/or may contain some system or game related code. The mass storage device 103C 30 is typically used to store game programs, the integrity of which may be verified and/or authenticated by the processor 102 using protected code from the EPROM 103B or elsewhere.

It is also possible for the operative components of the 35 gaming machine 100 to be distributed, for example input/output devices 106,107,108,109,110,111 to be provided remotely from the game controller 101.

FIG. 5 shows a gaming system 200 in accordance with an alternative embodiment. The gaming system 200 includes a 40 network 201, which for example may be an Ethernet network. Gaming machines 202, shown arranged in three banks 203 of two gaming machines 202 in FIG. 5, are connected to the network 201. The gaming machines 202 provide a player operable interface and may be the same as the gaming 45 machines 10,100 shown in FIGS. 2 and 3, or may have simplified functionality depending on the requirements for implementing game play. While banks 203 of two gaming machines are illustrated in FIG. 5, banks of one, three or more gaming machines are also envisaged.

One or more displays 204 may also be connected to the network 201. The displays 204 may, for example, be associated with one or more banks 203 of gaming machines. The displays 204 may be used to display representations associated with game play on the gaming machines 202, and/or used 55 to display other representations, for example promotional or informational material.

In a thick client embodiment, game server 205 implements part of the game played by a player using a gaming machine 202 and the gaming machine 202 implements part of the 60 game. With this embodiment, as both the game server and the gaming device implement part of the game, they collectively provide a game controller. A database management server 206 may manage storage of game programs and associated data for downloading or access by the gaming devices 202 in 65 a database 206A. Typically, if the gaming system enables players to participate in a Jackpot game, a Jackpot server 207

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will be provided to monitor and carry out the Jackpot game. A loyalty program server 212 may also be provided.

In a thin client embodiment, game server 205 implements most or all of the game played by a player using a gaming machine 202 and the gaming machine 202 essentially provides only the player interface. With this embodiment, the game server 205 provides the game controller. The gaining machine will receive player instructions, pass these to the game server which will process them and return game play outcomes to the gaming machine for display. In a thin client embodiment, the gaming machines could be computer terminals, e.g. PCs running software that provides a player interface operable using standard computer input and output components.

Servers are also typically provided to assist in the administration of the gaming network 200, including for example a gaming floor management server 208, and a licensing server 209 to monitor the use of licenses relating to particular games. An administrator terminal 210 is provided to allow an administrator to run the network 201 and the devices connected to the network.

The gaining network 200 may communicate with other gaming systems, other local networks, for example a corporate network, and/or a wide area network such as the Internet, for example through a firewall 211.

Persons skilled in the art will appreciate that in accordance with known techniques, functionality at the server side of the network may be distributed over a plurality of different computers. For example, elements may be run as a single "engine" on one server or a separate server may be provided. For example, the game server 205 could run a random generator engine. Alternatively, a separate random number generator server could be provided. Further, persons skilled in the art will appreciate that a plurality of games servers could be provided to run different games or a single game server may run a plurality of different games as required by the terminals.

In the embodiment, the base game is a spinning reel type game. Gaming systems for implementing games that involve a display of spinning reels as part of the display of the outcome of a game have either a video display or a mechanical display, these later machines most usually being "stepper" machines which have a separate stepper motor for each reel.

In some implementations the game controllers of such gaming machines select symbols by employing a stop determining function that randomly determines the stop position for each reel. For example, if there are five reels, each having twenty symbols, the stop determining function might determine that the stop positions are positions: 3, 13, 7, 9 and 17. The spinning of the reels is then controlled so that each symbol comes to a stop in the same row, typically a predetermined row in a "window" visible to the player on the display which corresponds to a player playing a single win line. When a reel stops, the symbols will be in one of a plurality of possible symbol positions for that reel relative to the stop position.

Gaming systems typically allow a player to select how many win lines of a plurality of win lines they will play in each game—i.e. a minimum of one win line up to the maximum number of win lines allowed by the game. Each win line is formed by a set of symbol positions consisting of one symbol position from each reel. That is, a predetermined symbol position of each reel is assigned to a win line. The symbol positions that constitute each of the win lines are usually advertised to the player by markings on the display or diagrams showing the symbol positions that correspond to

each win line. Other techniques for allowing the paler to make a bet are known such as allowing a player to select a number of reels to play.

The game controller 60 of the embodiment is shown in more detail in FIG. 6.

In FIG. 6 a number of modules are implemented by the processor 62 including random number generator 621, base game module 622, counter modification module 623, available feature module 624, feature game module 625 and display controller 626. In this embodiment, the modules are implemented as software executed by the processor. Persons skilled in the art will appreciate that in other embodiments, one or more of the modules may be implemented on a different processor, for example, the random number generator 621 may be implemented on a random number generator server. 15 Further, not all of the modules need be implemented as software executed by a processor and could be implemented by dedicated hardware.

In the embodiment, play of the game including the input of player instructions and the display of the game is via the 20 player interface 50. Initially play begins with a player playing a base game under the control of the base game module 622 which implements the base game in accordance with base game data 641 which as described above will be a spinning reel type game carried out in accordance with techniques 25 known in the art. In this respect it will be appreciated that in one example of a spinning reel type game the base game module 622 will employ the random number generator 621 to select stopping positions for a plurality of reels. During play of the base game, the counter event monitor 622B of the base 30 game module 622 determines whether an event has occurred in the base game which should result in a modification of a counter stored as counter data 642. Depending on the embodiment, the counter may or may not be reset. If the counter is reset, the counter may be reset each time a game session is 35 initiated or each time a gaming machine is not played for a predetermined time depending on the specific embodiment. Depending on the embodiment the counter event monitor 622B can monitor for different counter events including the completion of each game round such that the counter is modi- 40 fied after each game round, the completion of a plurality of game rounds, or the occurrence of a particular symbol or symbol combination during the base game.

Once the counter event monitor 622B determines that a counter event has occurred, it advises the counter modifica- 45 tion module 623 which determines a modification to apply to the current value of the counter stored as counter data 642. In the embodiment, the counter modification module 623 modifies the counter by implementing a bonus game using bonus game module **623**A. In the embodiment the bonus game is a 50 wheel game where a wheel 800 is exemplified in FIG. 8 is spun and a random value is obtained to add to the counter depending on the segment 801 to 814 which corresponds to the indicator **820** when the wheel stops. As indicated in FIG. 8, the segments can be of different sizes in order to give 55 different probabilities to various outcomes. Each of the segments 801 to 814 may represent a different value. The value that is spun up with the bonus game wheel is added to the current counter value. The current value of the counter is the segments and the values allocated to each sequence is stored as bonus game data 643.

In the embodiment, the memory 64 also stores feature range data with features allocated to a plurality (N) of ranges (N+1) with one range not allocated to a feature game such that 65 if a feature trigger event occurs during this range a feature game will not be triggered. A person skilled in the art will

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appreciate that in other embodiments each range of counter values may be allocated to a feature or indeed that there may be a plurality of ranges that are not allocated to a feature game. Typically, the range which does not correspond to a feature game will be the lowest range such that a feature game cannot be awarded shortly after a game session commences and the counter has been reset.

The feature trigger monitor 622A of the base game module monitors outcomes of the base game to determine whether a feature trigger condition has been met.

The feature trigger condition can be in accordance with any one of a number of known rules including but not limited to: when a special symbol, or a combination of symbols appears in the window;

when a time elapses;

when a system event occurs:

when an underlying random event occurs, for example, in the course of a game; or

when a turnover has elapsed.

In other embodiments, the feature trigger could occur independently of the base game, for example, it might be triggered within another feature or by a system.

When it determines that a feature trigger has occurred, the feature trigger monitor 622A initiates the available feature module 624. The available feature module compares the current value of the counter data 642 with the feature range data 644 to determine which of feature games 1 to N is available (or indeed, in some embodiments, that there isn't a feature game is available). The available feature module advises the feature game module 625 which feature game to implement and the feature game module 625 accesses feature game data 645 and accesses relevant feature data 645A, 645B or 645C. The feature game is then conducted by the feature game module 625 displayed on the display of player interface 50 under controller display controller 626. In other embodiments, there may be a plurality of feature game modules and different ones of the modules may operate depending on the determination by the available feature module 624. For example, where the feature game module is a implemented by executing a software routine, different software routines (and hence different software modules) may be executed for each

The feature game may be of any known feature game in the art but could, for example all be spinning reel type games but use different symbols. Alternatively, the feature games may be of different types, for example some games may be selection games, some games may involve the awarding of a jackpot etc.

The method **700** of the embodiment is summarised in FIG. 7 which shows that a base game is conducted 710 and is determined 720 whether to modify the counter. If the counter is to be increased it is increased 725 otherwise the method proceeds directly to determining whether the feature has been triggered 730. If the feature is triggered the relevant feature is determined 740 and then conducted 750.

EXAMPLE

FIGS. 9A to 9C are examples of displays that can be made displayed on display 54 by display controller 626. The size of 60 to a player in order to indicate which feature will be played if a feature is triggered during the base game.

In this example, a theme is applied of how many years back in time the player has progressed. A scale 910 is provided in order that the indicator 920 corresponding to the current value of the feature counter, indicates the position in years backwards from a starting position. Accordingly, the wheel shown in FIG. 8 can be themed to indicate values in terms of numbers

of years. In this example, the wheel is spun after each game and the wheel spins up values of 80 years for game 1,65 years for game 2 and 5 years for game 3, such that after game 3 the indicator is at 150 years back in time as shown in FIG. 9A.

Referring to FIGS. 9A to 9C it will be seen that there are 6 feature game ranges including: first range 931 is 0 to 100 years which corresponds to no feature game; second range 932 of 100 to 300 years which corresponds to a Wild West feature; third range 933 which corresponds to the period of 300 to 1200 years back in time which is a Pirate feature; 10 fourth range 934 which corresponds to a period 1200 to 3000 years back in time which has a Ming Dynasty feature; fifth range 935 which corresponds to the period of 3000 to 4000 years back in time and to an Ancient Greece feature; and a sixth range 936 which corresponds to more than 4000 years 15 back in time and to an Ancient Egypt feature 936.

The game is thus arranged so that the indicator will gradually move back in time for example as illustrated in FIG. 9B the feature game trigger is now within the pirate feature 933 range as indicated by indictor 920B. Accordingly, if the feature trigger, for example 3 scatters, were to occur at that point, the pirate feature will be triggered. As indicated by indicator 920C in the display 900C of FIG. 9C, the indicator continues moving back in time until the last of the features is reached whereafter it remains there until the feature is triggered.

Persons skilled in the art will appreciate that in this example, the indicator is an indirect representation of the counter. In other embodiments, the counter could be directly represented. Further, rather than modifying the indicator indirectly by modifying the counter, embodiments are conceivable where the indicator is directly modified, with reference to FIG. 6 a modified embodiment may be formed by modifying counter modification module 623 to be an indicator modification module and storing the position of the indicator as indicator data instead of counter data 642. It would be understood that in such an embodiment counter event monitor 622B would be understood to be an indicator event monitor i.e. it would monitor in the same way but result in modification of an indicator instead of a counter.

As indicated above, the secondary feature can be a series of 40 free games, using the same or different reels to those used in the base game or a second screen feature.

A person skilled in the art will appreciate that while the above embodiment has been described in relation to a video display, various other features could be implemented on a 45 mechanical machine. For example, the reel 800 could be a physical reel which is spun mechanically.

The above example is an example where the counter is modified by adding years to a "years back in time" counter. Persons skilled in the art will appreciate that other modifications could be applied. For example, if the scale were to show actual years a subtraction could be applied to move back in time. Other modifications such as multiplication or division could be appropriate with other ranges, for example with exponential scales.

A person skilled in the art will also appreciate that it is not necessary to have a display of the current counter position or that the counter position could be represented in other ways. For example simply by advising which feature is currently available.

Other variations will be apparent to a person skilled in the art and should be understood as falling within the scope of the invention described herein. For example, a spinning reel game, the base game could be a card game or a ball draw game such as Keno, Bingo or Arishinko.

Further aspects of the method will be apparent from the above description of the gaming system. Persons skilled in 12

the art will also appreciate that the method could be embodied in program code. The program code could be supplied in a number of ways, for example on a computer readable medium, such as a disc or a memory (for example, that could replace part of memory 103) or as a data signal (for example, by downloading it from a server).

It will be understood to persons skilled in the art of the invention that many modifications may be made without departing from the spirit and scope of the invention, in particular it will be apparent that certain features of embodiments of the invention can be employed to form further embodiments.

It is to be understood that, if any prior art is referred to herein, such reference does not constitute an admission that the prior art forms a part of the common general knowledge in the art in any country.

In the claims which follow and in the preceding description of the invention, except where the context requires otherwise due to express language or necessary implication, the word "comprise" or variations such as "comprises" or "comprising" is used in an inclusive sense, i.e. to specify the presence of the stated features but not to preclude the presence or addition of further features in various embodiments of the invention.

The invention claimed is:

1. A method of gaming for play of a base game, a bonus game, and a plurality of feature games on a gaming machine having a credit input mechanism configured to receive a physical item associated with a monetary value for establishing a credit balance, the credit balance being increasable and decreasable based at least on wagering activity, a display, a memory having data indicative of the plurality of feature games, and a game controller having a random number generator and a feature counter having a current value indicating a feature game, said current value being modifiable, the method comprising:

establishing the credit balance via said credit input mechanism receiving the physical item;

in accord with having established the credit balance via the credit input mechanism receiving the physical item, conducting the base game via the game controller;

conducting, via the game controller, the bonus game on a completion of the base game, including generating via the random number generator a random value;

displaying on the display a plurality of selections of feature games including a last feature game;

modifying, via the game controller, the feature counter including adding the random value to a current value of the feature counter in response to the play of the bonus game;

determining, via said game controller, whether a feature trigger event has occurred; and

in response to determining that the feature trigger event has occurred, conducting, via the game controller, one of the plurality of feature games indicated by the feature counter; and

wherein when the feature counter indicates said last feature game, said last feature game remains indicated until said feature trigger event occurs.

2. The method as claimed in claim 1, wherein different ranges of counter values are allocated to each of the plurality of feature games, and the method further comprising determining, based on the allocated ranges, whether the one feature game corresponds to the current value of the feature counter.

3. The method as claimed in claim 2, wherein at least one of the ranges of counter values is not allocated to the plurality of

feature games, and the method further comprising not conducting the plurality of feature games if the current value is within the at least one of the ranges when the feature trigger event occurs.

- 4. The method as claimed in claim 3, wherein the feature 5 counter represents a time period and each of the plurality of feature games corresponds to a time period in history.
- 5. The method as claimed in claim 1, wherein the bonus game is a spinning wheel game having a wheel, the wheel having a plurality of segments corresponding to a plurality of values, and wherein the wheel is spun and the random value is determined based on a random stopping position of the wheel.
- 6. The method as claimed in claim 1, wherein a prize value of at least one of the plurality of feature games is related to the current value of the feature counter.
- 7. The method as claimed in claim 1, further comprising resetting the feature counter in response to at least a determination that a new game session is to be conducted.
- 8. A game controller for play of a base game, a bonus game, a credit input mechanism configured to receive a physical item associated with a monetary value for establishing a credit balance, the credit balance being increasable and decreasable based at least on wagering activity, a display, a memory having data indicative of the plurality of feature 25 games, and the game controller comprising:
 - a feature counter having a current value indicating a feature game; and
 - a base game module configured to conduct the base game in accord with having established the credit balance via 30 the credit input mechanism receiving the physical item;
 - a bonus game module configured to conduct the bonus game on a completion of the base game;
 - a random number generator configured to generate for the bonus game a random value, wherein the display is 35 configured to indicate one of a plurality of selections of feature games including a last feature game;
 - a counter modification module configured to modify the feature counter including adding the random value to the current value of the feature counter in response to the 40 play of the bonus game;
 - a feature trigger monitor configured to determine whether a feature trigger event has occurred; and
 - a feature game module configured to, in response to determining that the feature trigger event has occurred, con- 45 duct one of the plurality of feature games indicated by the feature counter; and
 - wherein when the feature counter indicates said last feature game, said last feature game remains indicated until said feature trigger event occurs.
- 9. The game controller as claimed in claim 8, further comprising an available feature module configured to carry out the determination of whether the current value of the feature counter corresponds to one of the plurality of feature games in response to the feature trigger event occurring in the base 55 game
- 10. The game controller as claimed in claim 8, wherein different ranges of counter values are allocated to each of the plurality of feature games, and a determination based on the allocated ranges as to whether the one feature game corre- 60 sponds to the current value of the feature counter.
- 11. The game controller as claimed in claim 10, wherein at least one of the different ranges of counter values is not allocated to the plurality of feature games, such that if the current value is within the at least one of the different ranges 65 when the feature trigger event occurs, the plurality of feature games are not conducted.

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- 12. The game controller as claimed in claim 8, wherein the feature counter represents a time period and each of the plurality of feature games corresponds to a time period in history.
- 13. The game controller as claimed in claim 8, further comprising a bonus game module configured to conduct the bonus game to determine the random value.
- 14. The game controller as claimed in claim 8, wherein the bonus game is a spinning wheel game having a wheel, the wheel having a plurality of segments corresponding to a plurality of values, and wherein the wheel is spun and the random value is determined based on a random stopping position of the wheel.
- 15. The game controller as claimed in claim 8, wherein a prize value of at least one of the plurality of feature games is 15 related to the current value of the feature counter.
 - 16. The game controller as claimed in claim 8, is further configured to reset the feature counter in response to at least a determination that a new game session is to be conducted.
- 17. The game controller as claimed in claim 8, and further and a plurality of feature games on a gaming machine having 20 comprising a processor configured to execute program instructions stored in a memory.
 - **18**. A gaming system for play of a base game, a bonus game, and a plurality of feature games, the gaming system comprising:
 - a credit input mechanism configured to receive a physical item associated with a monetary value for establishing a credit balance, the credit balance being increasable and decreasable based at least on wagering activity;
 - a player interface;
 - a memory having data indicative of the plurality of feature games; and
 - a game controller comprising:
 - a feature counter having a current value indicating a feature game;
 - a base game module configured to conduct the base game in accord with having established the credit balance via the credit input mechanism receiving the physical item;
 - a bonus game module configured to conduct the bonus game on a completion of the base game;
 - a random number generator configured to generate a random value, wherein the player interface is configured to indicate one of a plurality of selections of feature games including a last feature game; and
 - a counter modification module configured to modify the feature counter including adding the random value to the current value of the feature counter in response to the play of the bonus game;
 - a feature trigger monitor configured to determine whether a feature trigger event has occurred; and
 - a feature game module configured to, in response to determining that the feature trigger event has occurred, conduct one of the plurality of feature games indicated by the feature counter; and
 - wherein when the feature counter indicates said last feature game, said last feature game remains indicated until said feature trigger event occurs.
 - 19. The gaming system as claimed in claim 18, wherein the player interface comprises a display configured to display (1) play of the base game, (2) the feature counter and (3) the plurality of feature games.
 - 20. The gaming system as claimed in claim 18, further comprising a game play mechanism operable by a player to initiate a play of the base game.
 - 21. The gaming system as claimed in claim 18, wherein the game controller comprises an available feature module configured to carry out the determination of whether the current

value of the feature counter corresponds to one of a plurality of feature games in response to the feature trigger event occurring in the base game.

- 22. The gaming system as claimed in claim 18, wherein different ranges of counter values are allocated to each of the 5 plurality of feature games, and the determination based on the allocated ranges as to whether the one feature game corresponds to the current value of the feature counter.
- 23. The gaming system as claimed in claim 22, wherein at least one of the ranges of counter values is not allocated to a 10 feature game such that if the current value is within said at least one of the ranges of counter values not allocated to a feature game when the feature trigger event occurs, the plurality of feature games are not conducted.
- 24. The gaming system as claimed in claim 18, wherein the 15 game controller comprises a bonus game module configured to conduct the bonus game to determine the random value.
- 25. The gaming system as claimed in claim 18, wherein the bonus game is a spinning wheel game having a wheel, the wheel having a plurality of segments corresponding to a plurality of values, and wherein the wheel is spun and the random value is determined based on a random stopping position of the wheel
- **26**. The gaming system as claimed in claim **18**, wherein a prize value of at least one the plurality of feature games is 25 related to the current value of the feature counter.
- 27. The gaming system as claimed in claim 18, wherein the game controller is configured to reset the feature counter in response to at least a determination that a new game session is to be conducted.
- 28. The gaming system as claimed in claim 18, wherein the game controller includes a processor configured to execute program instructions stored in a memory.
- 29. A method of gaming for play of a base game, a bonus game, and a plurality of feature games on a gaming machine 35 having a credit input mechanism configured to receive a physical item associated with a monetary value for establishing a credit balance, the credit balance being increasable and decreasable based at least on wagering activity, a display, a memory having data indicative of the plurality of feature 40 games, and a game controller having a random number generator and a feature indicator having a current position indicating a feature game, said current position being modifiable, the method comprising:
 - establishing the credit balance via said credit input mecha- 45 nism receiving the physical item;
 - in accord with having established the credit balance via the credit input mechanism receiving the physical item, conducting the base game via the game controller;
 - conducting, via the game controller, the bonus game on a 50 comprising: completion of the base game, including generating via a credit in the random number generator a random amount; item as
 - displaying on the display a plurality of selections of feature games including a last feature game;
 - modifying, via the game controller, the current position of 55 the feature indicator including adding the random amount to the current position of the feature indicator in response to the play of the bonus game;
 - determining, via the game controller whether a feature trigger event has occurred; and
 - in response to determining that the feature trigger event has occurred, conducting, via the game controller, one of the plurality of feature games indicated by the feature counter; and
 - wherein when the feature indicator indicates said last feature game, said last feature game remains indicated until said feature trigger event occurs.

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- 30. The method as claimed in claim 29, wherein the bonus game is a spinning wheel game having a wheel, the wheel having a plurality of segments corresponding to a plurality of values and wherein the wheel is spun and the random amount is determined based on a random stopping position of the wheel.
- 31. A game controller for play of a base game, a bonus game, and a plurality of feature games on a gaming system having a credit input mechanism configured to receiving a physical item associated with a monetary value for establishing a credit balance, the credit balance being increasable and decreasable based at least on wagering activity, a display device, a memory having data indicative of the plurality of feature games, and the game controller comprising:
 - a feature indicator having a current position indicating a feature game, said current position being modifiable; and
 - a base game module is configured to conduct the base game using said display device in accord with having established the credit balance via the credit input mechanism receiving the physical item;
 - a bonus game module configured to conduct the bonus game on a completion of the base game;
 - a random number generator configured to generate for the bonus game a random amount, wherein the display device is configured to indicate one of a plurality of selections of feature games including a last feature game; and
 - a counter modification module configured to modify the feature indicator including adding the random amount to the current position of the feature indicator for each in response to the play of the bonus game;
 - a feature trigger monitor configured to determine whether a feature trigger event has occurred; and
 - a feature game module configured to, in response to determining that the feature trigger event has occurred, conduct one of the plurality of feature games indicated by the feature counter; and
 - wherein when the feature indicator indicates said last feature game, said last feature game remains indicated until said feature trigger event occurs.
- 32. The game controller as claimed in claim 31, wherein the bonus game is a spinning wheel game having a wheel, the wheel having a plurality of segments corresponding to a plurality of values and wherein the wheel is spun and the random amount is determined based on a random stopping position of the wheel.
- **33**. A gaming system for play of a base game, a bonus game, and a plurality of feature games, the gaming system comprising:
 - a credit input mechanism configured to receive a physical item associated with a monetary value for establishing a credit balance, the credit balance being increasable and decreasable based at least on wagering activity;
 - a player interface;

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- a memory having data indicative of the plurality of feature games:
- a feature indicator having a current position indicating a feature game, said current position being modifiable; and
- a game controller, having a random number generator, and configured to:
 - conduct the base game in accord with having established the credit balance via the credit input mechanism receiving the physical item;
 - conduct the bonus game on a completion of the base game, wherein said random number generator is con-

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figured to generate for the bonus game a random amount, wherein the player interface is configured to indicate one of a plurality of selections of feature games including a last feature game;

- modify said feature indicator by adding the random 5 amount to a current position of the feature indicator in response to the play of the bonus game;
- determine whether a feature trigger event has occurred;
- in response to determining that the feature trigger event 10 has occurred, conduct one of the plurality of feature games indicated by the feature counter; and
- wherein when the feature indicator indicates said last feature game, said last feature game remains indicated until said feature trigger event occurs.
- **34**. The gaming system as claimed in claim **33**, wherein the game controller comprises a bonus game module configured to conduct the bonus game to determine the random amount.
- **35**. The game system as claimed in claim **33**, wherein the bonus game is a spinning wheel game having a wheel, the 20 wheel having a plurality of segments corresponding to a plurality of values and wherein the wheel is spun and the random amount is determined based on a random stopping position of the wheel.

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